George G. Vega Yon

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website ggvy.cl

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Talks ggv.cl/talk

Education

Ph.D. in Biostatistics (with concentration in Stat. Comp.) University of Southern California (2020). Dissertation "Essays on Bioinformatics and Social Network Analysis: Statistical and Computational Methods for Complex Systems"

M.Sc. in Social Sciences (Economics) California Institute of Technology (2016)

Master in Economics and Public Policy, Adolfo Ibáñez University (2011)

BS. in Social Sciences and BS. in Business Administration, Adolfo Ibáñez University (2010)

Professional Experience

University of Southern California, 2015—present Department of Preventive Medicine *Research Programmer*. A senior staff member at USC's Department of Preventive Medicine, I work closely with both staff and students on various scientific projects. My responsibilities included: implement statistical methods using R/C++, analyze complex data using USC's High-Performance Computing cluster, conducting training sessions on statistical computing, and writing scientific papers.

Chilean Pension Supervisor, August 2011 – August 2014 Research Division Analyst. Statistical and econometric analysis on the Chilean unemployment insurance, statistical software development, serving as a bridge between the IT and Research divisions.

Nodos Chile Social Network Analysis Ltda., January 2012—January 2014 Partner. Founding partner of one of the first applied SNA Consultancy Entrepreneurship in Chile.

Adolfo Ibáñez University, January 2011–June 2012. School of Government *Adjunct Professor*. Taught Introductory courses of Economics, Microeconomics and Statistical computing with Stata.

Chilean Ministry of Social Planning, March 2011—December 2011. Social Programs Monitoring Analyst. Survey and Analysis of the Government social programs supply and supporting the Monitoring Division with the Open-Data Initiative.

Software (selected)

- [1] George G. Vega Yon. rgexf: Build, Import and Export GEXF Graph Files (2020). R package version 0.16.0. URL: https://CRAN.R-project.org/package=rgexf. downloads 529K
- [2] **George G. Vega Yon**, Thomas Valente. netdiffuseR: Analysis of Diffusion and Contagion Processes on Networks (2020). R package version 1.22.0. URL: https://github.com/USCCANA/netdiffuseR. downloads 18K
- [3] **George G. Vega Yon**, Kayla de la Haye. *ergmito: Exponential Random Graph Models for Small Networks* (2020). R package version 0.3-0. URL: https://cran.r-project.org/package=ergmito.

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[4] George G. Vega Yon. slurmR: A Lightweight Wrapper for 'Slurm' (2020). R package version 0.4-1. URL: https://CRAN.

R-project.org/package=slurmR. downloads 3194

- [5] George G. Vega Yon. fmcmc: A friendly MCMC framework (2020). R package version 0.3-0. URL: https://CRAN.R-project.org/package=fmcmc. downloads 4878
- [6] **George G. Vega Yon.** barry: your to-go motif accountant (2020). C++ library version 0.0-1. URL: https://github.com/USCbiostats/barry.
- [7] **George G. Vega Yon.** twitterreport: Out-of-the-box analysis and reporting tools for twitter (2016). R package version 0.16. URL: https://doi.org/10.5281/zenodo.44528.

Academic Publications (selected)

- [1] George G.. Vega Yon, Duncan C. Thomas, John Morrison, et al. "On the automatic annotation of gene functions using observational data and phylogenetic trees". In: bioRxiv (May 2020). URL: https://www.biorxiv.org/content/early/2020/05/14/2020.05.14.095687.
- [2] **George G. Vega Yon**, Andrew Slaughter, and Kayla de la Haye. "Exponential random graph models for little networks". In: Social Networks (2020). contribution: One of my main dissertation chapters, I developed both the statistical method and software, as well as conducted analyses and led the writing process. URL: https://doi.org/10.1016/j.socnet.2020.07.005. in press.
- [3] **George G. Vega Yon** and Paul Marjoram. "fmcmc: A friendly MCMC framework". In: *Journal of Open Source Software* 4.39 (July 2019). contribution: I implemented the algorithms and led the writing process, p. 1427. URL: http://joss.theoj.org/papers/10.21105/joss.01427.
- [4] **George G. Vega Yon** and Brian Quistorff. "parallel: A command for parallel computing". In: *The Stata Journal: Promoting communications on statistics and Stata* 19.3 (Sept. 2019). *contribution: I first developed the Stata module, wrote the first draft, and led the writing process*, pp. 667–684. URL: http://journals.sagepub.com/doi/10.1177/1536867X19874242.

Honors and Professional Achievements

Technologies R, C++, ETFX, SQL, Python, XML, regex, Stata+Mata, VBA, Gephi, Pajek, Mathematica, MS Suit, git, unix.

Book reviewer: "Microeconometrics and Matlab: An Introduction", by Adams, Clarke and Quinn, Oxford University Press, 2015. "Mastering Gephi Network Visualization", by Ken Cherven, Packt Publishing, 2015. "Network Graph Analysis and Visualization with Gephi", by Ken Cherven, Packt Publishing, 2013.

Awards Travel Grant, Society of Young Network Scientist, 2019; Fellowship, California Institute of Technology, 2014; Scholarship, Adolfo Ibáñes University, 2006.

Manuscript reviewer The Official Journal of The Society for Computational Economics, The R Journal, Social Networks, Journal of Mathematical Sociology, Journal of Open Source Software, SUNBELT Conference (2016), International Conference on Computational Social Science (2019).

Misc Founder of the R Users Group in Chile (2013), co-organizer of the East LA R User Group (LAERUG).

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